

56. (New) The conductive system of claim 11, wherein the substrate comprises germanium.
57. (New) The conductive system of claim 11, wherein the substrate comprises gallium arsenide.

### **REMARKS**

Applicant has reviewed and considered the office action mailed on August 13, 2002 and the references cited therewith.

Claims 1-3, 5-7, 10-11, and 42-43 are amended, no claims are cancelled, and claims 46-57 are added; as a result, claims 1-11, 42-43, and 46-57 are now pending in the application. Claims 1-3, 5-7, 10-11 and 42-43 were not amended in response to a rejection based on prior art. Claims 2-3, 5, 7, 10-11 were rewritten to obviate an objection. Claims 1, 6, and 42-43 were amended to correct typographical errors. No new matter has been added by the amendments. New claims 46-57 are dependent on rewritten claims 2, 3, 5, 7, 10 and 11. Since claims 2, 3, 5, 7, 10, and 11 were indicated to be allowable, if rewritten, new claims 46-57, which depend from the rewritten claims, should be allowable.

### **§102 Rejection of the Claims**

Claims 1, 4, 6, 8, and 9 were rejected under 35 U.S.C. § 102(b) as being anticipated by Miyamoto et al. (U.S. Patent No. 6,195,156). Applicant traverses the rejections.

Claims 1 and 6 recite, "a plurality of conductive structures *embedded* in the foamed material layer" (emphasis added). In contrast, Miyamoto et al. at column 18, lines 28-32 teach, "By supplying aqueous solution containing metallic ion 205 to the photosensitive material on which a latent image has been formed, the aqueous solution *adheres to the surface* of the photosensitive material, following the image form (FIG. 20(d))" (emphasis added). Thus, Miyamoto et al. teach that "the aqueous solution *adheres to the surface* of the photosensitive material" (emphasis added). Since an aqueous solution that adheres to the surface of a material is not "embedded," under the plain meaning of "embedded," in the material, Miyamoto et al. do not teach "a plurality of conductive structures embedded in the foamed material layer." Hence,

Miyamoto et al. do not teach each of the elements of claims 1 and 6. Thus, the office action fails to state a *prima facie* case of anticipation with respect to claims 1 and 6.

Claim 4 is dependent on claim 1. Claims 8 and 9 are dependent on claim 6. For reasons analogous to those stated above, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 4, 8 and 9.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 1, 4, 6, 8, and 9.

### **§103 Rejection of the Claims**

Claims 42 and 43 were rejected under 35 USC § 103(a) as being unpatentable over Miyamoto et al. Applicant traverses the rejections.

Claim 42 recites, "a plurality of copper structures *embedded* in the foamed material layer" (emphasis added). Claim 43 recites, "a plurality of aluminum structures *embedded* in the foamed material layer" (emphasis added). In contrast, Miyamoto et al. at column 18, lines 28-32 teach, "By supplying aqueous solution containing metallic ion 205 to the photosensitive material on which a latent image has been formed, the aqueous solution *adheres to the surface* of the photosensitive material, following the image form (FIG. 20(d))" (emphasis added). Thus, Miyamoto et al. teach that "the aqueous solution *adheres to the surface* of the photosensitive material" (emphasis added). Since an aqueous solution that adheres to the surface of a material is not "embedded," according the plain meaning of "embedded," in the material, Miyamoto et al. do not teach or suggest "a plurality of copper structures embedded in the foamed material layer," as recited in claim 42, or "a plurality of aluminum structures embedded in the foamed material layer," as recited in claim 43. Hence, Miyamoto et al. do not teach or suggest each of the elements of claim 42 or 43. Thus, the office action fails to state a *prima facie* case of obviousness with respect to claims 42 and 43. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 42 and 43.

**Allowable Subject Matter**

Claims 2, 3, 5, 7, 10 and 11 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 2, 3, 5, 7, 10, and 11 have been rewritten including all of the limitations of the base claim and any intervening claims. Therefore, applicant requests withdrawal of the objections and reconsideration and allowance of claims 2, 3, 5, 7, 10, and 11.

New claims 46-57 are dependent on rewritten claims 2, 3, 5, 7, 10 and 11. Since claims 2, 3, 5, 7, 10, and 11 were indicated to be allowable, if rewritten, new claims 46-57, which depend from the rewritten claims, should be allowable.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone applicant's attorney at 612-371-2109 to facilitate prosecution of the application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

November 13, 2002

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 13 day of November, 2002.

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Signature

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